

IN THE CLAIMS

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1. (Currently Amended) An image information describing method comprising:  
sampling ~~a plurality of thumbnail frames from~~ video information including ~~a plurality~~  
of video frames ~~at~~ with at least one of arbitrary a variable time interval parameter and a  
variable size parameter to obtain thumbnail frames ; and

describing attribute information for specifying each of the video frames ~~frame~~  
corresponding to each of the thumbnail frames as thumbnail information.

2. (Currently Amended) The image information describing method according to  
claim 31 ~~1~~, further comprising describing additional information contains scene change  
position information of the video information.

3. (Currently Amended) The image information describing method according to  
claim 31 ~~4~~, further comprising additional information contains frame change value  
information of the video information.

4. (Currently Amended) The image information describing method according to  
claim 31 ~~1~~, wherein the attribute information contains position information indicative of a  
position on a time axis of the video frame corresponding to the thumbnail frame.

5. (Currently Amended) The image information describing method according to  
claim 31 ~~1~~, wherein the attribute information contains information concerning the size of the  
thumbnail frame.

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6. (Currently Amended) The image information describing method according to claim 31 4, wherein the attribute information contains information concerning the resolution of the thumbnail frame.

7. (Currently Amended) The image information describing method according to claim 31 4, wherein the thumbnail information contains image data of the thumbnail frame or a pointer for the thumbnail frame.

8. (Currently Amended) The image information describing method according to claim 31 4, wherein the plurality of thumbnail frames are stored as one item of the thumbnail information.

9. (Currently Amended) A video retrieval method for retrieving video information including a plurality of video frames by employing thumbnail information concerning a plurality of thumbnail frames obtained by sampling the video information with at least one of arbitrary a variable time interval parameter and a variable size parameter, the video retrieval method comprising:

describing, as the thumbnail information, attribute information containing at least first position information indicative of a position on a time axis in order to specify the video frame corresponding to each of the thumbnail frames; and

retrieving the thumbnail frame having the closest first position information to a second position information indicative of a position on the time axis of a desired video frame of the predetermined video information.

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10. (Currently Amended) The video retrieval method according to claim 34 9, wherein the thumbnail frames contain a frame obtained by sampling only an arbitrary part of one frame of the video information with arbitrary time interval and size.

11. (Currently Amended) The video retrieval method according to claim 34 9, wherein the plurality of thumbnail frames are stored as one item of the thumbnail information.

12. (Currently Amended) A video retrieval method for retrieving video information including a plurality of video frames by employing thumbnail information concerning a plurality of thumbnail frames obtained by sampling video information with at least one of arbitrary a variable time interval parameter and a variable size parameter, the video retrieval method comprising:

describing, as the sample image information, attribute information containing at least first position information indicative of a position on a time axis in order to specify the video frame corresponding to each of the thumbnail frames;

describing, as additional information, scene change position information of the video information; and

retrieving a thumbnail frame having the closest first position information to a second position information indicative of a position on the time axis of a desired video information and earlier or later than the scene change position information.

13. (Currently Amended) The video retrieval method according to claim 37 12, wherein the thumbnail frames contain a frame obtained by sampling only an arbitrary part of one frame of the video information with arbitrary time interval and size.

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14. (Currently Amended) The video retrieval method according to claim 37 ~~42~~, wherein the plurality of thumbnail frames are stored as one item of the thumbnail information.

15. (Currently Amended) A video retrieval method for retrieving video information including a plurality of video frames by employing thumbnail information concerning a plurality of thumbnail frames obtained by sampling the video information with at least one of arbitrary a variable time interval parameter and a variable size parameter, the video retrieval method comprising:

describing, as the thumbnail information, attribute information containing at least position information indicative of a position on a time axis in order to specify the video frame corresponding to each of the thumbnail frames; and

retrieving a thumbnail frame in which difference from a desired video information is equal to or less than a predetermined threshold.

16. (Currently Amended) The video retrieval method according to claim 40 ~~45~~, wherein the position information described for a thumbnail frame in which the difference from the desired video information is equal to or less than the predetermined threshold is recorded as the retrieval result.

17. (Original) The video retrieval method according to claim 16, wherein the thumbnail frames contain a frame obtained by sampling only an arbitrary part of one frame of the video information with arbitrary time interval and size.

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18. (Original) The video retrieval method according to claim 16, wherein the plurality of thumbnail frames are stored as one item of the thumbnail information.

19. (Currently Amended) A video reproducing method for reproducing video information including a plurality of video frames at variable speed by employing thumbnail information concerning a plurality of thumbnail frames obtained by sampling the video information with at least one of arbitrary a variable time interval parameter and a variable size parameter, the video reproducing method comprising:

describing, as the thumbnail information, attribute information containing the thumbnail frames and at least position information indicative of a position on a time axis in order to specify the video frames corresponding to the thumbnail frames;

describing frame change value information of the video information as additional information; and

changing a reproduction speed of the thumbnail frames according to the frame change value information.

20. (Currently Amended) The video reproducing method according to claim 43 ~~19~~, wherein the thumbnail frames contain a frame obtained by sampling only an arbitrary part of one frame of the video information with arbitrary time interval and size.

21. (Currently Amended) The video reproducing method according to claim 43 ~~19~~, wherein the plurality of thumbnail frames are stored as one item of the thumbnail information.

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22. (Currently Amended) A video retrieval apparatus for retrieving video information including a plurality of video frames by employing thumbnail information concerning a plurality of thumbnail frames obtained by sampling the video information with at least one of arbitrary a variable time interval parameter and a variable size parameter, the video retrieval apparatus comprising:

a first describing unit configured to describe, as the thumbnail information, attribute information containing at least first position information indicative of a position on a time axis in order to specify the video frame corresponding to each of the thumbnail frames;

a second describing unit configured to describe, as additional information, scene change position information of the video information; and

a retrieving unit configured to retrieve a thumbnail frame having the closest first position information to a second position information indicative of a position on the time axis of a desired video information and earlier or later than the scene change position information.

23. (Currently Amended) The video retrieval apparatus according to claim 46 ~~22~~, wherein the thumbnail frames contain a frame obtained by sampling only an arbitrary part of one frame of the video information with arbitrary time interval and size.

24. (Currently Amended) The video retrieval apparatus according to claim 46 ~~22~~, wherein the plurality of thumbnail frames are stored as one item of the thumbnail information.

25. (Currently Amended) A video retrieval apparatus for retrieving video information including a plurality of video frames by employing thumbnail information concerning a plurality of thumbnail frames obtained by sampling the video information with at least one of

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~~arbitrary~~ a variable time interval parameter and a variable size parameter, the video retrieval apparatus comprising:

a describing unit configured to describe, as the thumbnail information, attribute information containing at least position information indicative of a position on a time axis in order to specify the video frame corresponding to each of the thumbnail frames; and

a retrieving unit configured to retrieve a thumbnail frame in which difference from a desired video information is equal to or less than a predetermined threshold.

26. (Currently Amended) The video retrieval apparatus according to claim ~~49~~ 25, wherein the thumbnail frames contain a frame obtained by sampling only an arbitrary part of one frame of the video information with arbitrary time interval and size.

27. (Currently Amended) The video retrieval apparatus according to claim ~~49~~ 25, wherein the plurality of thumbnail frames are stored as one item of the thumbnail information.

28. (Currently Amended) A video reproducing apparatus for reproducing video information including a plurality of video frames at variable speed by employing thumbnail information concerning a plurality of thumbnail frames obtained by sampling the video information with at least one of ~~arbitrary~~ a variable time interval parameter and a variable size parameter, the video reproducing apparatus comprising:

a first describing unit configured to describe, as the thumbnail information, attribute information containing the thumbnail frames and at least position information indicative of a position on a time axis in order to specify the video frame corresponding to each of the thumbnail frames;

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a second describing unit configured to describe frame change value information of the video information in the thumbnail information as additional information; and

a changing unit configured to change a reproduction speed of the thumbnail frames according to the frame change value information.

29. (Currently Amended) The video reproducing apparatus according to claim 52 28, wherein the thumbnail frames contain a frame obtained by sampling only an arbitrary part of one frame of the video information with arbitrary time interval and size.

30. (Currently Amended) The video reproducing apparatus according to claim 52 28, wherein the plurality of thumbnail frames are stored as one item of the thumbnail information.

31. (New) The image information describing method according to claim 1, the sampling comprising:

sampling a video frame in the video information;

extracting a part of the sampled video frame; and

sampling the extracted part.

32. (New) The image information describing method according to claim 1, the sampling comprising:

sampling a video frame in the video information; and

reducing a resolution of the sampled video frame.



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33. (New) The image information describing method according to claim 1, the sampling comprising:

sampling a video frame in the video information; and  
reducing a size of the sampled video frame.

34. (New) The video retrieval method according to claim 9, wherein the thumbnail frames are obtained by sampling a video frame in the video information, extracting a part of the sampled video frame and sampling the extracted part.

35. (New) The video retrieval method according to claim 9, wherein the thumbnail frames are obtained by sampling a video frame in the video information and reducing a resolution of the sampled video frame.

36. (New) The video retrieval method according to claim 9, wherein the thumbnail frames are obtained by sampling a video frame in the video information and reducing a size of the sampled video frame.

37. (New) The video retrieval method according to claim 12, wherein the thumbnail frames are obtained by sampling a video frame in the video information, extracting a part of the sampled video frame and sampling the extracted part.

38. (New) The video retrieval method according to claim 12, wherein the thumbnail frames are obtained by sampling a video frame in the video information and reducing a resolution of the sampled video frame.

39. (New) The video retrieval method according to claim 12, wherein the thumbnail frames are obtained by sampling a video frame in the video information and reducing a size of the sampled video frame.

40. (New) The video retrieval method according to claim 15, wherein the thumbnail frames are obtained by sampling a video frame in the video information, extracting a part of the sampled video frame and sampling the extracted part.

41. (New) The video retrieval method according to claim 15, wherein the thumbnail frames are obtained by sampling a video frame in the video information and reducing a resolution of the sampled video frame.

42. (New) The video retrieval method according to claim 15, wherein the thumbnail frames are obtained by sampling a video frame in the video information and reducing a size of the sampled video frame.

43. (New) The video retrieval method according to claim 19, wherein the thumbnail frames are obtained by sampling a video frame in the video information, extracting a part of the sampled video frame and sampling the extracted part.

44. (New) The video retrieval method according to claim 19, wherein the thumbnail frames are obtained by sampling a video frame in the video information and reducing a resolution of the sampled video frame.

45. (New) The video retrieval method according to claim 19, wherein the thumbnail frames are obtained by sampling a video frame in the video information and reducing a size of the sampled video frame.

46. (New) The video retrieval apparatus according to claim 22, wherein the thumbnail frames are obtained by sampling a video frame in the video information, extracting a part of the sampled video frame and sampling the extracted part.

47. (New) The video retrieval apparatus according to claim 22, wherein the thumbnail frames are obtained by sampling a video frame in the video information and reducing a resolution of the sampled video frame.

48. (New) The video retrieval apparatus according to claim 22, wherein the thumbnail frames are obtained by sampling a video frame in the video information and reducing a size of the sampled video frame.

49. (New) The video retrieval apparatus according to claim 25, wherein the thumbnail frames are obtained by sampling a video frame in the video information, extracting a part of the sampled video frame and sampling the extracted part.

50. (New) The video retrieval apparatus according to claim 25, wherein the thumbnail frames are obtained by sampling a video frame in the video information and reducing a resolution of the sampled video frame.

51. (New) The video retrieval apparatus according to claim 25, wherein the thumbnail frames are obtained by sampling a video frame in the video information and reducing a size of the sampled video frame.

52. (New) The video reproducing apparatus according to claim 28, wherein the thumbnail frames are obtained by sampling a video frame in the video information, extracting a part of the sampled video frame and sampling the extracted part.

53. (New) The video retrieval apparatus according to claim 28, wherein the thumbnail frames are obtained by sampling a video frame in the video information and reducing a resolution of the sampled video frame.

54. (New): The video retrieval apparatus according to claim 28, wherein the thumbnail frames are obtained by sampling a video frame in the video information and reducing a size of the sampled video frame.

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